

THE IDENTITY OF LUTZOMYIA CURRAN (DIPTERA)

By CURTIS W. SABROSKY¹

Lutzomyia americana Curran, new genus and new species (1934, Families and Genera of North American Diptera, pp. 387, 396, 398) were proposed briefly in couplet 11 of the key to Muscidae, supplemented by a three-line footnote and figures of the head and wing. The genus was referred to the subfamily Egingiinae, an Old World group not otherwise known from North America. Thus far it has not been recognized, but two syntypes were recently located by Dr. Paul H. Arnaud, Jr., in the collection of the American Museum of Natural History, and kindly loaned to me for study. It appears that *Lutzomyia*, preoccupied and renamed *Pseudolutzomyia* by Rapp in 1945, equals *Bezzimyia* Townsend (1919, Proc. U. S. Natl. Mus. 56: 591) [**New Synonymy**], although *americana* is somewhat atypical in the genus. *Bezzimyia* was placed by Townsend in the family Melanophoridae, which I consider to be the primitive subfamily Rhinophorinae in the Tachinidae.

Inadvertently, two specific names were used by Curran in the original publication of *Lutzomyia americana* in the footnote on p. 387, and *latifrons* in the legends of figs. 52 and 59 (pp. 396, 398). As first reviser, I reject the alternate name *latifrons*, and choose to call the species *Bezzimyia americana* (Curran) [**New Combination**].

In view of the brevity of the original description, it is appropriate to redescribe the specimen which is here designated as lectotype of *Lutzomyia americana* Curran.

Male.—Black or black brown, subshining though finely pollinose, the second and third antennal segments luteous, first segment and arista brown, front anteriorly reddish yellow, palpus luteous, stalk of halter pale yellow, wing light brown with dark brown veins, calypteres whitish.

Head teneral and slightly collapsed, but the front apparently wider than an eye; frontal triangle, including ocellar tubercle, rather large, extending over half the length of front; each shining parafacial slightly less than width of frontalia, possibly subequal or wider in a mature specimen; head in profile as figured by Curran (p. 396, fig. 52), higher than long, antennal axis longer than vibris-

¹ Entomology Research Division, Agricultural Research Service, U. S. Department of Agriculture, Washington, D. C.

sal axis, and cheek approximately half the height of an eye; face deeply depressed; antenna long, attaining level of vibrissal angles, the proximal two segments short, the third elongate, 7 times the length of second; arista thickened to tip, gently tapering, both proximal segments short. Bristles short and inconspicuous, the proclinate and divergent ocellars almost hairlike, the row of 5 frontals and the verticals somewhat stronger; coarse parafacial hairs extending ventrad onto parafacials to below the level of base of arista; back of head with scattered coarse black hairs; vibrissal angle with a group of about 6 subequal bristles, and finer and shorter bristles extending over half way up the facial ridges, the upper bristles extremely short.

Thorax relatively narrow, the mesonotum $4/5$ as broad as long, with strong mesonotal suture and conspicuous humeri; scutellum short, rounded; postscutellum narrow, weakly developed; dorsum with coarse but short black hairs; prosternum, propleuron, and pteropleuron bare. Chaetotaxy: 2 humeral, 1 (or more) anterior and 4 posterior dorsocentrals (only the prescutellar pair strong), 1 posthumeral, 1 supraalar, 1 + 1 notopleural, 1 apical and 1 subapical scutellar, 1 propleural, 1 stigmatal, 3 mesopleurals in row along hind margin (with scattered, coarse hairs), a row of strong hypopleurals (2 on left side, 4 on right), and possibly 2 sternopleurals (the sternopleurals are reduced and not readily distinguished from the coarse hairs).

Abdomen with segments 2 to 5 subequal in length, with scattered coarse hairs but without obvious bristles; fifth sternum large, with rounded lobes. Genitalia (from paralectotype) as in *B. busckii*: Inner forceps bifurcate, slightly curved in profile, broadened at base, slightly shorter than outer forceps, the latter subtriangular, broadly rounded; aedeagus slender, distal portion on each side with a slender process at right angle to long axis of aedeagus.

Wing venation as figured by Curran (p. 398, fig. 59), but the hind crossvein straight, parallel to course of fore crossvein and forming angle of about 80° with fifth vein; calypteres narrow and somewhat elongate, as in *Melanophora roralis* (L.), but longer, the thoracic calypter approximately 1.5 times as long as broad.

Legs slender, tarsi compressed and especially elongate, the fore tarsus 1.27 times the length of fore tibia; fore basitarsus long, 0.87 times the length of the remaining segments combined; claws and pulvilli short, barely $1/3$ the length of last tarsal segment; femora and tibiae thickly beset with short appressed hairs, bristled only at apices of tibiae, except for a very short anterodorsal bristle slightly beyond middle of left hind tibia.

Length of body and of wing, 5 mm.

Lectotype male, Santa Cruz Village, Cobabi Mts., Ariz., 10-12 Aug. 1916, 32° 1' N., 111° 54' W., about 3100 ft. Paralectotype male, "Kits Peak Rincon," Baboquivari Mts., Ariz., 1-4 Aug. 1916, 31° 57' N., 111° 33' W., about 4050 ft. Both in the American Museum of Natural History.

I have studied five specimens of the genus: the lectotype and paratype of *americana*, the holotype male of the type-species, *B. busckii* Townsend, described from Panama, and two females, probably *busckii*, from Brownsville, Tex., one collected locally and one intercepted in a plane from the Panama Canal Zone. Figures of the head and wing of *busckii* were published by Greene (1934, Proc. Ent. Soc. Wash, 36: 37, 38), and may be compared with Curran's figures for *americana*.

The two species may be separated as follows, using characters that will be common to both sexes as indicated by the available material of *busckii*.

1. Arista thickened no more than half way to tip; crossveins approximated, separated at most by length of fore crossvein; wing with short brown band enclosing the crossveins; two short pteropleural bristles *B. busckii* Tns.
- Arista thickened to tip; crossveins more widely separated, by twice the length of fore crossvein; wing membrane clear; no pteropleural bristles *B. americana* (Curran)

In addition to the characters used in the key, the male of *americana* is distinguished by a broad front, wider than an eye, whereas the male of *busckii* has a narrower front, slightly less than half the width of an eye. The specimens of *americana* are teneral, as the appearance of the head indicates, and in mature specimens the front would undoubtedly appear narrower than it now does. The apparent absence of leg bristles, noted by Curran for *americana*, is a matter of reduction, and of variation. *B. busckii* has some short bristles on femora and tibiae. The lectotype of *americana* has only a very short bristle on one hind tibia, but the paralectotype has 4 or 5 short but distinct anterodorsal bristles on the right hind tibia and 1 on the left.

The characters of head and calypteres, in particular, resemble those of typical melanophorine genera. The nearest known relative of *Bezzimyia* appears to be *Shannoniella* Townsend (1939, Revista Ent. 10: 249), from Brazil, for which Townsend proposed the tribe Shannoniellini of his family Melanophoridae. The head in *Shannoniella* is like that of *B. americana*, with broad male front and